REMARKS

Upon entry of the instant amendment claims 24, 28 and 30-49 remain pending, of which claims 28 and 36 where withdrawn from consideration by the Examiner. The Office Action dated May 9, 2006 has been carefully reviewed and the following reply is made in response thereto. In view of the amendments and the following remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Summary of Meeting with Examiners

Applicants would like to thank Examiners Ballard and Kemmerer for their courteous and helpful discussions held with Applicants' representatives on October 30, 2006. At the meeting, Jonathan Wall presented an overview of the invention and explained that no animal model existed at the time of the invention that could show that amyloid masses could be removed by an antibody *in vivo*. In addition, the cited art and the 37 CFR 1.131 declaration submitted March 6, 2006 were also discussed. The Examiners stated that they would reconsider the 37 CFR 1.131 declaration as well as the cited art.

37 CFR 1.131 Declaration dated March 6, 2006

During the interview with Examiner Ballard and Examiner Kemmerer, it was indicated that the 37 CFR 1.131 declaration dated March 6, 2006 would be reconsidered. No such reconsideration has yet taken place. The prior Examiner did not find the declaration persuasive to overcome the 6,787,523 and 6,743,427 patents (Schenk Patents) because the Examiner alleged that the evidence was not fully commensurate with the claims of the invention. Specifically, the Examiner noted that claim 24 is directed to opsonization of an amyloid fibril and induces removal of amyloid deposits and claim 46 is specifically directed to opsonization of non-light chain amyloid fibril and induces removal of amyloid deposits. May 9, 2006 Office Action, p. 3.

The MPEP states that a 37 CFR 1.131 declaration must establish possession of either the whole invention claimed or something falling within the claim (such as a species of a claimed genus), in the sense that the claim as a whole reads on it. Further, it states that the 37 CFR 1.131 declaration is not insufficient merely because it does not show the identical disclosure of the

reference(s) relied upon. If the affidavit contains facts showing a completion of the invention commensurate with the extent of the invention as claimed is shown in the reference, the affidavit or declaration is sufficient, whether or not it is a showing of the identical disclosure of the reference. MPEP 715.02.

In the May 9, 2006 Office Action the Examiner rejected the claims over the '523 and '427 patents as anticipated under 35 U.S.C. § 102(e). Specifically, the Examiner stated that the patents disclose an antibody or immunoglobulin that binds to and opsonizes an amyloid fibril and induces removal of amyloid deposits. Office Action, p. 8. The declaration submitted clearly demonstrates that the antibodies disclosed in the instant application when administered to the disclosed animal model remove amyloid plaques. For instance, Exhibit B of the declaration, dated before December 2, 1997 (the priority date of the Schenk Patents), shows that amyloidoma masses were removed when anti-amyloid antibodies were administered to an animal model. Thus, the declaration is sufficient to overcome the Schenk Patents and the rejection under 35 U.S.C. § 102(e) should be withdrawn.

Election/Restriction

On page 4 of the Office Action, the Examiner has withdrawn claims 28 and 36 from examination at this time as they are purportedly "drawn to antibodies raised against immunoglobulin light chain and to monoclonal antibodies reactive with immunoglobulin light chain..."

Applicants respectfully remind the Examiner that at the original species election Applicants elected the species of "immunoglobulin reactive with a non-light chain amyloid as the functional species" on February 22, 2002. Applicants respectfully submit that the subject matter of claims 28 and 36 is directed to this reactive species. Thus, Applicants respectfully submit that the withdrawn status of these claims as directed to non-elected species is mistaken as the instant application clearly teaches that representative antibodies raised against Ig light chains and that react with Ig light chains, also react with β amyloid, which is encompassed within the currently elected species (see p. 20, lines 7 to 14). Applicants respectfully request that claims 28 and 36 be rejoined with the elected claims currently under examination.

The rejection of claims 24, 30-35 and 37-49 under 35 U.S.C. § 102(e) as being anticipated by Schenk et al. (U.S. Patents 6,743,427 and 6,787,523)

Applicants submitted a 37 CFR 1.131 declaration dated March 6, 2006 from the named inventors establishing that the subject matter of the pending claims was invented in the U.S. prior to the earliest asserted priority date of the '427 and '523 patents (December 2, 1997). As set forth in declaration, the named inventors both conceived and reduced to practice the subject matter of the pending claims prior to December 2, 1997. Accordingly, Applicants respectfully request that the pending rejection be withdrawn (see above argument).

The rejection of claims 24, 30-31, 35, 39-46 and 48-49 as being anticipated under 35 U.S.C. § 102(b) by Konig et al. (WO 96/25435)

Applicants have reviewed the Examiner's restatement of the pending rejection and reasoning concerning the maintenance of this rejection. Applicants submit the Examiner has not met her burden of establishing a *prima facie* case of anticipation. Applicants respectfully submit that a claim is anticipated only if each and every element at set forth in the claim is found in the prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Applicants assert that Konig *et al.* does not teach each and every limitation of the claimed invention.

Applicants submit that Konig *et al.* merely disclose antibodies that prevent aggregation of amyloid plaques *in vitro*, and not removal of plaques *in vivo*, and do not teach administration of any antibody to a patient, as required by the claims. Specifically, Konig *et al.* state "[t]he antibodies of the instant invention provide for methods of preventing aggregation of βA4 peptide because of the specificity of the antibody will allow for the specific interference with the free C-terminal residue, thereby interfering with and disrupting aggregation that may be pathogenic in AD." (page 13, lines 16 to 20). Also, see page 6, lines 21 to 22, page 7, lines 21 to 23, page 7, line 27 to page 8, line 2, and claims 15, 16 and 20 for specific references that the antibodies disclosed in Konig *et al.* prevent aggregation. Applicants submit that prevention of aggregation (of plaque) is different from removing a previously formed plaque.

To the extent that the Examiner is making an inherency argument that the antibodies disclosed in Konig *et al.* would inherently remove amyloid plaques if administered, there was no

actual administration of the antibodies performed or described in the patent publication. Applicants respectfully submit that the instant claims are directed to methods of treating a patient, not to the antibodies. Furthermore, the art shows that not all C-terminal antibodies may reduce plaque burden. The antibody described in Konig *et al.* is a C-terminal antibody and the Schenk patent ('427 patent cited by the Examiner) describes a C-terminal antibody "16C11" as "fail[ing] to have any effect on plaque burden." ('427 patent, column 61, lines 20-22).

Applicants respectfully direct Examiner to section 2112 of the MPEP which states that "[t]o establish inherency, the evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Thus, as the '427 Schenk patent points out, not all C-terminal antibodies can have an effect on plaque burden. Accordingly, Konig *et al.* do not anticipate, directly or inherently, the current claims.

In addition, Konig *et al.* fail to teach an amount of antibody "effective to remove amyloid deposits" as required in the claims. Applicants assert that Konig *et al.* do not disclose or teach administering an effective amount of an antibody to remove amyloid deposits from a patient.

Since two elements of the claims ("removal of amyloid" and "amount effective to remove amyloid deposits") are not found in Konig *et al.*, the Applicants assert that the Examiner has not met her burden in establishing a *prima facie* case of anticipation. We invite the Examiner to cite specific language in the prior art that teaches claimed elements "removal of amyloid" and "amount effective to remove amyloid deposits." Thus, in view of the above arguments, Applicants submit that Konig *et al.* fail to anticipate the claimed invention and the rejection should be withdrawn.

The rejection of claims 24, 30-35 and 37-49 as being anticipated under 35 U.S.C. § 102(b) by Becker (Nettleship) et al. (EP 613,007)

Applicants submit the Examiner has not met her burden of establishing a *prima facie* case of anticipation. As discusses above, Applicants respectfully submit that a claim is anticipated if each and every element at set forth in the claim if found in the prior art. *Verdegaal Bros.* at 631.

Applicants assert that Becker *et al.* does not teach each and every limitation of the claimed invention.

Specifically, Applicants assert that the Becker *et al.* published application fails to provide any discussion of the amount of antibody that is to be administered to a patient to remove amyloid deposits. Becker *et al.* generally discusses administration of antibodies having a specificity for β-amyloid peptide in the β-sheet conformation and that "antibodies of the invention are useful in the diagnosis and treatment of mammals suffering from Alzheimer's disease" (column 8, lines 16 to 19). Becker *et al.* did not dislcose or show removal of amyloid deposits, which is a claimed element. Similar to Konig *et al.*, Becker *et al.* also fail to teach a key limitation of the pending claims, "an amount effective to remove amyloid deposits." Since this element of the claims is not found in Becker *et al.*, Applicants assert that the Examiner has not met her burden in establishing a *prima facie* case of anticipation. We invite the Examiner to cite specific language in the prior art that teaches the claimed elements "removal of amyloid" and "amount effective to remove amyloid deposits."

Additionally, the Federal Circuit has held that to anticipate, a reference must also enable one of skill in the art to make and use the claimed invention. See *Minnesota Manufacturing and Mining v. Chemque, Inc.*, 303 F.3d 1294 (Fed. Cir. 2002). Applicants would like to point out that Becker *et al.* do not provide an enabling disclosure for administering to the patient an antibody or immunoglobulin polypeptide or fragment thereof in an amount effective to remove amyloid deposits. Thus, in view of the above arguments, Applicants submit that Becker *et al.* fail to anticipate the claimed invention and the rejection should be withdrawn.

The rejection of claims 24, 30-35 and 37-49 as being obvious under 35 U.S.C. § 103(a) over Konig et al., Nettleship et al., Schenk et al. and the Benjamani text

As discussed above, the claims are directed to a method of removing amyloid deposits in a patient comprising administering to the patient an antibody or immunoglobulin polypeptide or fragment thereof in an amount effective to remove amyloid deposits.

As discussed above, the Schenk patents are not prior art against the pending claims. Further, the Benjamani text fails to disclose the claimed elements that Konig *et al.* and Becker *et al.* lack, *.i.e.*, the administration of an effective amount of antibody that removes amyloid

deposits. As such, none of the cited reference teach this critical limitation and the combined teachings of the cited references cannot render the pending claims obvious. Applicants respectfully request that the pending rejection be withdrawn.

CONCLUSIONS

Applicants respectfully submit that the pending claims are now in condition for allowance The Examiner is hereby invited to contact the undersigned for any remaining issues.

Respectfully submitted,
COOLEY GODWARD LLP

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By: _____
Edward Amaya
Reg. No. 54,960

COOLEY GODWARD LLP
ATTN: Patent Group
1200 19th Street, NW
Washington D.C. 20036

CUSTOMER NUMBER: 58249

Tel: (202) 842-7800
Fax: (202) 842-7899